

## TITLE

## PORTABLE BATHING APPARATUS

## CROSS-REFERENCE TO RELATED APPLICATIONS

- 5 This application claims priority from Australian Provisional Application No. 2003 906793 filed 9 December 2003 in the name of the present applicant.

## BACKGROUND OF THE INVENTION

## Field of the Invention

- 10 This invention relates to a portable bathing apparatus. This invention has particular but not exclusive application to a bathing apparatus having a receptacle for bathing infants, and for illustrative purposes reference will be made to such application.

## 15 Discussion of the Background Art

Persons often use large open topped containers for bathing infants and small children. Alternatively, laundry washing tubs and such like are often used as a substitute.

- 20 In order to support the child and to prevent the child from placing its head under the water a sling may be provided consisting of a textile covering stretched between opposing members of a wire frame. One example of a sling type bathing device is disclosed in United Kingdom Patent Application GB 2081088 in the name of Markham *et al.*

- 25 In some instances a syphon must be used to drain the bath water from the large container because often it is too heavy to handle.

- 30 Travelling with young children often means that the parents must take with them a baby's pram, a portable cot, change table, sufficient clothes for the child as well as a large container, syphon and sling for bathing the child. As a consequence often there is little room left in the parent's car to carry other items including the parents clothing.

US Pat. No. 6,705,959 issued to Sundberg *et al.* describes a bath station which provides support for a child during bathing that collapses to a smaller volume

for storage. However, the Sundberg device is of elaborate construction, may be prone to leakage and requires a separate container for transport and storage.

Accordingly, an apparatus that may be used to bath children which is portable and which perhaps fulfils other functions auxiliary to bathing would be most desirable.

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## SUMMARY OF THE INVENTION

### Object of the Invention

The present invention aims to alleviate at least one of the above disadvantages and to provide a bathing apparatus that is reliable and efficient in use.

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### Disclosure of the Invention

With the foregoing and other aims which will be apparent from the following description in view, this invention relates to a bathing apparatus for an infant, said apparatus including:

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an open topped container for bathing liquids;

a lid adapted to close said container; and

carry means associated with said container and/or said lid for carrying the apparatus.

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Preferably the container includes a drain that may be selectively closed by a closure and wherein liquids contained in said container may be drained therefrom by opening said drain.

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The container is preferably waterproof and of rigid or at least resilient construction. Accordingly the container may be made from a variety of materials including plastics materials. However, in other embodiments, the container may include a rigid frame that provides support for walls constructed from a textile or other suitable flexible material.

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Alternatively, the container may include an outer casing and an inner tub or bath. If desired, the outer casing may include an end wall hinged thereto for providing access to the interior of the bathing apparatus.

Preferably the container is large enough that it may be used to bathe an infant or small child therein.

In one embodiment the container may be substantially parallelepiped or box-like in shape. A top or bottom wall of the container may include a generally convex

portion and/or raised side portions and wherein use a child may be placed between said raised side portions when being changed, said side portions inhibiting the child from rolling off the top or bottom wall.

In an alternative embodiment the container may be substantially pod shaped.

5           Suitably, a bottom interior surface of the container is contoured to support the child or infant in a reclining position. Most suitably the child's head is supported such that the child's face is above the side walls of the container for improved safety. Alternatively, a bottom interior surface of the container is contoured to support the child or infant in a seated position.

10           The lid may be permanently or releasably attached to the container and, like the container, may be of rigid or at least resilient construction. For example, the lid may be hingedly connected to the container using one or more hinges. Alternatively, a plurality of snap fitting clips may be used to secure the detachable lid to the container.

15           In one embodiment, the lid may be substantially the same size as the container, alternatively the depth dimension of the lid may be relatively shallow and the container relatively deep in comparison.

            The top wall of the lid may include a generally convex portion and/or raised side portions and wherein use a child may be placed between said raised side  
20           portions when being changed, said side portions inhibiting the child from rolling off the top wall.

            The apparatus may also include locking means which may be used to retain the lid in a closed position relative to the container.

25           The carry means may comprise a handle that is attached to either the container or the lid. The handle may be integrally formed with the either the container or the lid, or may be retractable within the apparatus. If required, the carry means may comprise a flexible strap which a person may place over their shoulder.

            The bathing apparatus suitably include rollable transport members, such as wheels or castors, wherein the apparatus may be conveniently wheeled when  
30           required to be moved between locations.

            The drain may include an aperture formed in the container. For example, the aperture may be formed in a base wall of the container, an end wall or a side wall adjacent said base wall.

In one embodiment the aperture of the drain may be selectively closed by a suitably shaped plug.

The aperture may also include a connector which will facilitate the connection thereto of a hose which itself may include a valve assembly to selectively close the aperture.

The bathing apparatus may also include a divider that is locatable between the open topped container and the lid so as to divide the chamber defined by said container and lid when closed. The divider may be used to separate wet clothing and towels, which could be stored in the container, from dry clothing, towels and other requisites that may be stored within the confines of the lid.

The container and/or lid may also be used to store bathing products including soaps, shampoos, conditioners, moisturisers and talcum powder. Suitably, the divider may include a plurality of compartments for such storage purposes.

The apparatus may also include a mattress that is locatable within either the container or the lid, and whereby the apparatus may also be used as a portable cot or for changing purposes.

#### BRIEF DETAILS OF THE DRAWINGS

In order that this invention may be more easily understood and put into practical effect, reference will now be made to the accompanying drawings which illustrate preferred embodiments of the invention, wherein:

FIG. 1 is a perspective view of a bathing apparatus of a first embodiment of the invention;

FIG. 2 is a sectional side view of the bathing apparatus of the first embodiment showing internal structure and components;

FIG. 3 is a front view of the bathing apparatus of the first embodiment;

FIG. 4 is a rear view of the bathing apparatus of the first embodiment;

FIG. 5 is an exploded rear view of the mounting arrangement of a transportation member for the bathing apparatus;

FIG. 6 is an enlarged side view of the transportation member mounted on the bathing apparatus;

FIG. 7 is an exploded side view of the bathing apparatus of the first embodiment showing the internal components;

FIG. 8 is a side view of the bathing apparatus of a first embodiment in relation to an average baby;

FIG. 9 is an exploded perspective view of the bathing apparatus and internal components;

5        FIG. 10 includes front and rear perspective views of a bathing apparatus of a second embodiment of the invention;

FIG. 11 is a rear perspective view of a top portion of the bathing apparatus of the second embodiment showing an opening end wall in a closed position;

10       FIG. 12 is a rear perspective view of a top portion of the bathing apparatus of the second embodiment showing an opening end wall in an open position;

FIG. 13 is an exploded perspective view of the bathing apparatus of the second embodiment illustrating internal structure and components;

15       FIG. 14 includes a sequence of views 1, 2 and 3 illustrating steps in the configuration of a sleeping module or cot of the bathing apparatus of the second embodiment;

FIG. 15 is a perspective view of the configured sleeping module or cot shown in FIG. 14;

FIG. 16 is a side elevational view of a bathing apparatus of a third embodiment of the invention;

20       FIG. 17 is a perspective view of the bathing apparatus of the third embodiment;

FIG. 18 is an exploded perspective view of the bathing apparatus of the third embodiment illustrating internal structure and components;

25       FIG. 19 is a side elevational view of a bathing apparatus of a fourth embodiment of the invention;

FIG. 20 is a perspective view of the bathing apparatus of the fourth embodiment;

FIG. 21 is an exploded perspective view of the bathing apparatus of the fourth embodiment illustrating internal structure and components;

30       FIG. 22 is a side elevational view of a bathing apparatus of a fifth embodiment of the invention;

FIG. 23 is a perspective view of the bathing apparatus of the fifth embodiment; and

FIG. 24 is an exploded perspective view of the bathing apparatus of the fifth embodiment illustrating internal structure and components.

It is emphasized that the drawings are merely illustrative of the variety of ways in which the invention might be put into effect, and are not to be treated as being exhaustive. In particular the dimensions included on some of the drawings are not to be treated as at all limiting.

### DESCRIPTION OF EMBODIMENTS OF THE INVENTION

FIGs 1 to 9 of the drawings illustrate various aspects of a bathing apparatus. 10 of a first embodiment that includes an open topped container or tub 11 that is selectively closed by a lid 12, which lid is selectively secured thereto by clasps or clips 35. In FIG. 1 the apparatus 10 is shown with the lid 12 secured to the container 11 with a telescopic handle 36 extended ready for convenient grasping for movement by a parent 40.

The apparatus 10 of the embodiment, which happens to be suited to an infant aged 3 to 5 months, is approximately 650 mm long and 300 mm wide. The receptacle formed by the interior of the container 11 varies in depth from approximately 200 mm deep at a foot end to only 40 mm at a head end, as illustrated in FIG. 8.

The container 11 is constructed from a rigid waterproof material, such as a plastics material which may be rotationally moulded to the desired shape. The container 11 includes an arcuate bottom wall 13, two opposing side walls 14 and two opposing end walls 15.

The apparatus 10 of the embodiment is provided with a pair of wheels 32 that are located within complementary shaped recesses 33 provided in an end wall, suitably at the foot end of the container 11 as shown in FIGs 4 to 6.

The container also includes a drain having an aperture 16 formed in one of the side walls 15, adjacent the bottom wall, see FIG 9. The aperture 15 is selectively closed by a removable plug (not shown).

The container 11 also includes a carry handle 22 that is integrally formed with a peripheral edge portion of a side wall 14. In the embodiment, a portion of the carry handle 22 is also formed on the lid 12.

One end wall of the container 11 optionally includes a pair of stopper portions 29 opposite to said wheels 32, which assist in supporting the bathing apparatus in an

upright position when the lid 12 and container 11 are secured together for transport (see FIG. 2).

The lid 12, like the container 11, is constructed from a moulded plastics material. Other materials will also be suited to construction of the bathing apparatus.

5 The lid 12 includes a top wall 17 that consists of a concave central portion 18 located in between two opposing raised portions 19. The lid 12 also includes two opposing side walls 20 and two opposing end walls 21.

The lid 12 can be attached to the container 11 using snap fitting, plastics or metallic clips 35, which may be lockable as required.

10 The container 11 also includes a shoulder strap 23 that is preferably releasably attached to mountings 24 which are secured to respective end walls 15 of the apparatus. The effective length of the shoulder strap 23 is adjustable and can be detached from the mountings 24 if so desired.

15 The bathing apparatus 10 also includes a divider 25 that is locatable between the open topped container and the lid so as to divide the chamber defined by said container and lid when closed. The divider 25 suitably includes a plurality of storage compartments 26.

20 The bathing apparatus may further include a generally rectangularly shaped foam padded change table or mattress 27 that is locatable within the confines of the upturned lid 12 and which may be stored within the lid. The mattress preferably rests upon a rectangularly shaped board 28 that is removably located inside the lid and which itself rests upon the top wall 17.

25 Preferably a significant portion of the side and end walls 20 and 21 respectively of the lid extend above the mattress 27 and in use shall prevent an infant that is lying on the mattress from rolling out of the lid.

It will be appreciated that the lid 12 and storage compartments 26 may be used to store a variety of products, including infant bathing requisites, a pillow, baby clothes, toys and a hose 30 having a fitting 31 associated with one end thereof which may be used to selectively secure the hose to a water spout.

30 In use, the container 11 may be detached from the lid 12 and placed on its bottom wall 13. An auxiliary support member 34 is suitably provided for stabilising the container in view of the greater mass of the infant being disposed at the head end of thereof, see FIG. 8. Most preferably, the bottom wall 13 of the container has a

shape contoured to support the infant. In particular, the infant's face is desirably supported above the periphery of the side walls 14 of the container 11.

The plug is preferably used to close the aperture 16 and wherein water from the spout is conveyed into the container using the hose 30. Once sufficient water  
5 has been deposited into the container 11 so as to at least partially fill same, the water may be used to bathe an infant or small child 41.

Having bathed the infant or child, the dirty water may be removed from the container by removing the plug and allowing the water to pass through the open  
aperture 16.

10 The inverted lid 12 may be used as a change table when drying and/or changing the child by placing the child on the mattress 27 located on the central portion 18, as illustrated in FIG. 9.

It will be appreciated that the bathing receptacle 10 overcomes the need for a bath, change table, cot and possibly a suit case or other container to carry infant  
15 requisites.

A bathing apparatus 110 of a second embodiment is illustrated in FIGs 10 to 15. The apparatus has a generally rectangular outer shape and includes a container or outer casing 111 which is selectively closed by a lid 112. In this embodiment, a  
20 retractable telescopic handle 136 and wheels 132 are fitted to the lid 112.

Further the container 111 includes an opening end wall 137 hinged thereto and conveniently providing access to the interior of the bathing apparatus. The end wall is illustrated in closed and open positions in FIGs 11 and 12, respectively. The end wall 137 may be opened by releasing a catch or clip 138 provided to secure end  
25 the wall in the closed position. Infant requisites, such as might be contained in a removable nappy or diaper bag 142, may be accessed without necessitating removing the lid 112 from the container 111.

Turning to the exploded view in FIG. 13, the lid 112 is here removed from the container or outer casing to reveal an inner tub or bath 139 formed separately from  
30 the outer casing. The inner tub or bath includes a contoured inner wall 113 and a drain aperture 116. The bath 139 includes a stepped end portion for accommodating the removable nappy or diaper bag 142 for access via the hinged end wall 137.



The lid 112 includes a mattress 127 secured to an inner surface thereof by retainers such as hook and loop (or "Velcro") fabric or press studs.

Other infant bathing requisites can be retained in a detachable fabric bag 143 having multiple compartments or pockets 126 and a hanging handle 144, or such as the fitted sheet 144 merely stored within the casing 111.

Upon releasing the lid 112 from the outer casing 111 and removing the inner tub or bath 139, the outer casing may be configured as a cot as depicted in the sequence illustrated in FIG. 14. Subsequent to emptying the casing in step (1), the mattress 127 is detached from the lid 112 and placed into the casing in step (2). The fitted sheet 144 is then arranged within the casing to provide the dressed cot or sleeping module illustrated in FIG. 15.

A bathing apparatus 210 of a third embodiment is illustrated in FIGs 16 to 18. The bathing apparatus has a generally rectangular outer shape and includes a container 211 and a lid 212. The lid includes a carry handle 222. Mountings 224 are provided on the container 211 for a shoulder strap 223 for carriage by a parent or other adult 40.

Turning particularly to FIG 18, the container 211 includes an arcuate bottom wall 213 having a textured internal surface to minimise baby slipping in the bath or tub. The lid includes a top wall 217 having a hard or rigid outer casing and a mattress 227 provided on an interior surface of the top wall. The interior of the lid 212 constitutes a change table 218 having opposed raised side portions 219 for locating an infant.

A divider 225 having a plurality of compartments 226 is sized to fit between opposed side walls 214 of the bath formed in the container 211. A drainage outlet 216 is provided in an end wall 215 of the container.

In a fourth embodiment of the invention illustrated in FIGs 19 to 21, the bathing apparatus 310 is generally pod shaped. The apparatus has a lid 311 that is of the approximately the same size, particularly in the depth dimension, as the container 312. The bathing apparatus 310 includes a shoulder strap 323 attached to the container 312 by mounts 324. The container further includes a drain 316 for draining bathing liquids, as desired.

With reference to the exploded view in FIG. 21, the container 312 further includes a smaller convex interior surface 313 that a child may sit on when being bathed. The lid is provided with a plurality of storage compartments 326 on an internal surface thereof. A dished ovoid divider 346 having a hard backing and a soft mattress 327 forms a change table which curves around the child in the fourth embodiment. Both the lid 311 and the container 312 include cooperating portions of a carry handle 322 formed integrally with the bathing apparatus.

A bathing apparatus 410 of a fifth embodiment is illustrated in FIGs 22 to 24. This fifth and last embodiment is a further simplified variation on the first and second embodiments described hereinabove. The apparatus omits the wheels and retractable handle from either of the container 411 or lid 412, and instead employs a shoulder strap 423.

The container 411 includes an arcuate bottom wall 413 having a textured surface for reducing the chance of infant slipping. The lid 412 includes a rigid outer wall or casing 417 and a mattress with raised internal side portions providing a change table which inhibits an infant from rolling off. The lid is hingedly attached to a divider 425 which includes a plurality of compartments for storage of infant requisites, which divider is received with the bath portion of the container 411.

In a further embodiment (not illustrated) the lid may also include a divider in the form of a rectangularly or ovoid shaped flap that is releasably and hingedly attached to one of the side walls of the container. In use, the flap may be used to selectively close the interior of the lid. The flap can include a strap like handle. When the lid is alternatively used as a crib, it is preferred that the flap is removed to avoid inadvertently covering any infant.

It will of course be realised that the above description has been given only by way of illustrative example of the present invention and that all such modifications and variations thereto as would be apparent to persons skilled in the art are deemed to fall within the broad scope and ambit of this invention as is defined in the claims which follow.